ABSTRACT

Presbyopia is treated by a system using various lasers to remove a portion of the scleral tissue and increase the accommodation of the presbyopic patient's eye. Stable accommodation is achieved by the filling of the sub-conjunctiva tissue to the laser-ablated scleral areas. The proposed laser wavelength ranges from ultraviolet to infrared of (0.15-0.36) microns, (0.5-1.4) microns and (0.9 - 3.2) microns. Both scanning and fiber delivered systems are proposed to generate the ablation patterns. Laser ablation of the sclera may be conducted with or without opening the conjunctiva layer.

09820632.033001